

WHAT IS CLAIMED IS:

1. A surface pressure distribution sensor comprising:
row lines having a plurality of conductors extending in
5 parallel to each other in a first direction;

column lines having a plurality of conductors extending
in parallel to each other in a second direction across the
first direction; and

a substrate including the row lines and a substrate
10 including the column lines,

wherein at least one of the substrates comprises a
flexible film substrate, and a pressure distribution is
detected based on an electrostatic capacitance change at
intersections of the row lines and the column lines.

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2. A surface pressure distribution sensor according to
Claim 1, wherein the row lines and the column lines are
formed on first and second independent substrates,
respectively, and the first and second substrates overlap so
20 that the row lines and the column lines intersect with each
other.

3. A surface pressure distribution sensor according to
Claim 1, wherein the substrates are formed of a single
25 flexible film substrate, the row lines and the column lines
are formed on the flexible film substrate, and the flexible
film substrate is folded at a predetermined position so that
the row lines and the column lines intersect with each other.

4. A surface pressure distribution sensor according to any one of Claims 1 through 3, wherein the flexible film substrate is made of a resin having different thermal shrinkages in the first and second directions;

the row lines and the column lines are formed so as to extend in the higher-thermal-shrinkage direction when a film stress caused by the row lines or the column lines is a tensile stress; and

the row lines and the column lines are formed so as to extend in the lower-thermal-shrinkage direction when the film stress is a compressive stress.

5. A surface pressure distribution sensor according to any one of Claims 1 through 3, at least either the row lines or the column lines are coated with an insulating film.

6. A surface pressure distribution sensor according to Claim 5, wherein the flexible film substrate is made of a resin having different thermal shrinkages in the first and the second directions;

the row lines and the column lines are formed so as to extend in the higher-thermal-shrinkage direction when a film stress caused by the row lines or the column lines and the insulating film is a tensile stress; and

the row lines and the column lines are formed so as to extend in the lower-thermal-shrinkage direction when the film stress is a compressive stress.

7. A surface pressure distribution sensor according to Claim 3, wherein the row lines and the column lines are formed on the flexible film substrate so as to extend in the same direction, and the flexible film substrate is folded so
5 that the row lines and the column lines intersect with each other.